CLAIMS:

1. A purified secreted *Chlamydia* polypeptide which is identified by its expression by a Gram-negative bacterial strain and secretion by the type III secretion pathway of said bacterial strain.

2. A purified polypeptide according to Claim 1 wherein said polypeptide is selected by a method for identifying polypeptides secreted by *Chlamydia* comprising (a) providing a recombinant expression vector containing at least the DNA coding for the polypeptide of interest; (b) transforming a Gram-negative strain containing a type III secretion pathway with said recombinant vector; (c) expressing this vector in the Gram-negative strain transformed in (b); and (d) detecting the secretion of said DNA expression product; wherein the secretion of said expression product indicates that it corresponds to a secreted *Chlamydia* polypeptide.

3. A purified polypeptide according to Claim 1 wherein said polypeptide is selected by a method for identifying polypeptides secreted by *Chlamydia* comprising (a) providing a recombinant expression vector comprising at least the DNA coding for the polypeptide of interest fused to a reporter gene; (b) transforming a Gram-negative strain containing a type III secretion pathway with said recombinant vector; (c) expressing this vector in the Gram-negative strain transformed in (b); and (d) detecting the secretion of said reporter gene expression product; wherein the secretion of said expression product indicates that the fused DNA contains at least a polynucleotide corresponding to a secreted *Chlamydia* polypeptide.

4. A purified secreted *Chlamydia* polypeptide according to Claims 1, 2 or 3 wherein said Gram-negative strain containing a type III secretion pathway is a *Shigella* strain.

5. A purified polypeptide according to Claim 1 wherein said polypeptide belongs to the Inc family.

6. A purified polypeptide according to Claim 5 wherein said polypeptide is selected

from the group consisting of IncA, IncB, IncC, CPn0026, CPn0308 and CPn0585.

7. A method for identifying a secreted *Chlamydia* polypeptide wherein said method comprises (a) providing a recombinant expression vector containing at least DNA coding for the polypeptide of interest; (b) transforming a Gram-negative strain containing a type III secretion pathway with said recombinant vector; (c) expressing said vector in said Gram-negative transformed strain; and (d) detecting the secretion of said DNA expression product; wherein the secretion of said expression product indicates that it corresponds to a secreted *Chlamydia* polypeptide.

8. A method for identifying a secreted *Chlamydia* polypeptide wherein said method comprises (a) providing a recombinant expression vector containing at least DNA coding for the polypeptide of interest fused to a reporter gene; (b) transforming a Gram-negative strain containing a type III secretion pathway with said recombinant vector; (c) expressing this vector in said transformed Gram-negative strain; and (d) detecting the secretion of said reporter gene expression product; wherein the secretion of said expression product indicates that the fused DNA contains at least a polynucleotide corresponding to a secreted *Chlamydia* polypeptide.

9. A method according to Claims 7 or 8 wherein said Gram-negative strain containing a type III secretion pathway is a *Shigella* strain.

10. A method according to Claims 7 or 8 wherein said expression product is secreted by a type III secretion pathway.

11. A method for screening an active molecule inhibiting the secretion of a secreted *Chlamydia* polypeptide wherein said method comprises (a) providing a recombinant expression vector containing at least DNA coding for the polypeptide the secretion of which is to be inhibited; (b) transforming a Gram-negative strain containing a type III secretion

pathway with said recombinant vector; (c) expressing said DNA of said vector in said transformed Gram-negative strain in the presence of the tested molecule; (d) expressing said DNA of said vector in said transformed Gram-negative strain in the absence of the tested molecule; and (e) comparing secretion of the DNA expression product of step (c) and step (d); wherein a decrease of said secretion is indicative of the ability of said tested molecule to inhibit secretion of said secreted *Chlamydia* polypeptide.

12. A method for screening a molecule which inhibits secretion of a secreted *Chlamydia* polypeptide wherein said method comprises (a) providing a recombinant expression vector containing at least DNA coding for the polypeptide the secretion of which is to be inhibited fused to a reporter gene; (b) transforming a Gram-negative strain containing a type III secretion pathway with said recombinant vector; (c) expressing said vector in said transformed Gram-negative strain in the presence of the tested molecule; (d) expressing said vector in said transformed Gram-negative strain in the absence of the tested molecule; and (e) comparing secretion of the expression product of said reporter gene in step (c) and step (d); wherein a decrease of said secretion is indicative of the ability of said tested molecule to inhibit secretion of said secreted *Chlamydia* polypeptide.

13. A method according to Claims 11 or 12 wherein said Gram-negative strain containing a type III secretion pathway is a *Shigella* strain.

14. A method according to Claims 11 or 12, wherein the tested molecule inhibits type III pathway secretion.

15. An immunogenic composition comprising at least a polypeptide according to Claim 1 or an immunogenic fragment thereof.

16. A vaccinating composition against *Chlamydia* infection wherein said composition comprises at least one polypeptide according to Claim 1 or an immunogenic

fragment thereof along with a pharmaceutically acceptable carrier.

17. A vaccinating composition according to Claim 16, wherein said infection contributes to atherosclerosis.

18. The vaccinating composition according to Claim 16, wherein said infection is a sexually transmitted disease.

19. A therapeutic composition active against *Chlamydia* infection, wherein said therapeutic composition comprises at least an active molecule identified by the method according to Claims 11 or 12.

20. An antibody against *Chlamydia* wherein said antibody is directed against the polypeptide according to Claim 1 or an antigenic fragment thereof.

21. A method for diagnosing a *Chlamydia* infection in a patient wherein said method comprises (a) providing a polypeptide according to Claim 1, or an immunogenic fragment thereof, optionally labeled; (b) bringing said polypeptide or immunogenic fragment thereof into contact with a serum sample of said patient; and (c) detecting complexes formed between said polypeptide or immunogenic fragment thereof and antibodies contained in the serum sample; wherein said complexes are indicative of a *Chlamydia* infection in said patient.

22. A method for diagnosing a *Chlamydia* infection in a patient wherein said method comprises: (a) providing a patient sample of a tissue suspected to be infected by *Chlamydia;* (b) bringing said sample into contact with an antibody according to Claim 20; and (c) detecting antigen-antibody complexion; wherein said complexion is indicative of a *Chlamydia* infection in said patient.

23. A plasmid for expression of secreted *Chlamydia* polypeptide wherein said plasmid contains at least DNA coding for a polypeptide according to Claim 1.

24. A plasmid according to Claim 22 wherein said DNA is further fused to a reporter gene.

25. The plasmid of Claim 24, wherein a vector deposited at C.N.C.M. on December 13, 2000 with accession No. I-2593 is used for the construction of said plasmid.

26. A recombinant Gram-negative strain wherein said strain is transformed by a plasmid according to Claim 23.

27. A recombinant Gram-negative strain according to Claim 26 wherein said strain is a *Shigella* strain.

28. A recombinant Gram-negative strain according to Claim 26 wherein said strain contains the DNA coding for an IncA polypeptide, said strain being deposited at C.N.C.M. with accession No. I-2592 on December 13, 2000.

29. A method of preventing or treating a *Chlamydia* infection in a mammal, preferably a human, which comprises administering an effective amount of a purified secreted polypeptide of *Chlamydia* which is identified by its secretion in a Gram-negative strain containing a type III secretion pathway to a mammal in need thereof.